REMARKS/ARGUMENTS

Claims 1-3, 5-15, 17-27 and 29-36 are in the case. The applicants have studied the office action mailed August 23, 2007 and believe the application is in condition for allowance. Reconsideration and reexamination are respectfully requested.

Claims 1-9, 11, 13-21, 23, 25-33, and 35 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Maurer (US Patent Application No. 20030065780) filed September 27, 2002, in view of "Applicant Admitted Prior Art", referred to hereinafter as 'AAPA'. Claims 10, 12, 22, 24, 34, and 36 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Maurer (US Patent Application No. 20030065780) filed September 27, 2002, in view of "Applicant Admitted Prior Art", and further in view of "Logical vs. Physical File System Backup", By: Hutchinson, Published: 1999; referred to hereinafter as 'Hutchinson'. These rejections are respectfully traversed.

For example, claim 1 is directed to a "data management method, comprising: backing up contents of a source device at a first client station as at least one object of a database stored in a data storage subsystem wherein the at least one object represents an image of the contents of the source device and wherein the contents of the source device includes a plurality of files and a file directory of the source device; using the database, tracking attributes and location of the at least one object in the database; using the at least one object, restoring the contents of the source device from the at least one object to a single target file in a file system stored on a storage device so that the target file contains said contents of the source device, wherein said target file is not an object of said database and wherein said file system comprises a plurality of files and an address table identifying the location of each file on said storage device; and copying the restored contents of the source device from the single target file to a target device so that the target device contains the contents of the source device."

It is the Examiner's position that the Maurer reference teaches "backing up contents of a source device at a first client station as at least one object of a database stored in a data storage subsystem wherein the at least one object represents an image of the contents of the source device" citing paragraphs 0060-0061, and 0106 of the Maurer reference. The applicants respectfully disagree.

Although the Maurer reference mentions a database, it is respectfully submitted that the cited paragraphs merely identify the *type* of data on the volumes being backed up by the system of the Maurer reference:

> The invention is particularly useful when data on the standard volumes and BCV's represents data related to an application 208a and/or application 208b, and in particular the invention is particularly useful if the application is a database, such as an Oracle database available from Oracle Corporation of Redwood, Calif. [0076]   Maurer reference.

It is believed that the data stored on the standard volumes and the BCV's of the Maurer reference are stored in files. Thus, in a backup operation of the Maurer reference, it is believed that a file is copied from the standard volume and stored as a file on the BCV. The Examiner has cited no portion of the Maurer reference which in any manner indicates that during a backup operation, the contents of the standard volume is backed up as *an object in a database* as required by claim 1.

The Examiner appears to concede that the Maurer reference does not teach or suggest "using the database, tracking attributes and location of the at least one object in the database" as required by claim 1.   Indeed, the Examiner has cited no portion of the Maurer reference which in any manner teaches or suggests using a database to track attributes and location of an object in the database wherein the database object represents an image of the contents of the standard volume of the Maurer reference.

Claim 1 further requires "using the at least one object, restoring the contents of the source device from the at least one object to a *single* target file in a file system stored on a storage device so that the target file contains said contents of the source device [wherein the contents of the source device includes a plurality of files and a file directory of the source device]." [Emphasis added.] In contrast, it is believed that the Examiner's citations to the Maurer reference describe restoring a volume containing files to the same or another volume containing those files. Thus, a plurality of files are restored as a plurality of files. The Examiner has cited no portion of the Maurer reference teaching or suggesting "using the at least one object, restoring the contents of the source device from the at least one object to a *single* target file in a file system stored on a storage device so that the target file contains said contents of the source device

[wherein the contents of the source device includes a plurality of files and a file directory of the source device]."

It is the Examiner's position that the "redo log" of the Maurer reference meets the recited target file citing paragraphs 0109 and 0110 of the Maurer reference. The applicants respectfully disagree.

Again, it is respectfully submitted that the cited "redo log" is discussed in the Maurer reference merely as an example of the type of data which can be copied from the standard volume and stored as a file on the BCV. The Examiner has cited no portion of the Maurer reference which teaches or suggests restoring contents *from a database object* to the redo file.

Furthermore, it is clear that the cited "redo log" does not contain the "contents of the source device [wherein the contents of the source device includes a plurality of files and a file directory of the source device]" which has been restored "from the at least one [database] object" as required by claim 1. The Examiner has cited no teaching or suggestion that the redo log file contains the "contents of the source device [wherein the contents of the source device includes a plurality of files and a file directory of the source device]" which has been restored "from the at least one [database] object" as required by claim 1.

It is the Examiner's position that the AAPA discloses using a database, tracking attributes and location of the at least one object in the database citing paragraph 0004 of the present application and that it would have been "obvious to incorporate AAPA's teachings into the Maurer system." However, even if the Examiner's position were correct, a point not conceded by the present applicants, such a combination still would have no teaching or suggestion of "using the at least one object, restoring the contents of the source device from the at least one object to a *single* target file in a file system stored on a storage device so that the target file contains said contents of the source device [wherein the contents of the source device includes a plurality of files and a file directory of the source device]" as established above.

Lacking such a single target file, such a combination clearly would have no teaching or suggestion of "copying the restored contents of the source device from the *single* target file to a target device so that the target device contains the contents of the source device" as required by claim 1.

The deficiencies of the Examiner's citations to the Maurer reference and the AAPA are not met by the Examiner's citations to the Hutchinson reference.

Independent claims 13 and 25 may be distinguished in a similar fashion. The rejection of the dependent claims is improper for the reasons given above. Moreover, the dependent claims include additional limitations, which in combination with the base and intervening claims from which they depend provide still further grounds of patentability over the cited art.

For example, dependent claim 11 further requires: "… wherein said target file is a flat file." It is the Examiner's position that the Maurer reference teaches "wherein said target file is a flat file" citing paragraph 0074 of the Maurer reference. The applicants respectfully disagree.

It is respectfully submitted that the cited paragraph discusses creating a map of the logical configuration of the physical devices on the source computer system in the form of a flat file:

[0074] The method further includes discovering logical information related to the Standard volumes that are part of the volume group on the source computer system 113a. A map of the logical information to physical devices on the source computer system is created, preferably in the form of a flat file that may be converted into a tree structure for fast verification of the logical information. That map is used to build a substantially identical logical configuration on the target computer system 113b, preferably after the logical information has been verified by using a tree structure configuration of the logical information. Maurer reference, paragraph 74.

Table 2 of the Maurer reference provides an example of such mapping information. The Examiner has cited no portion of the Mauer reference which in any manner teaches or suggests that such a flat file contains the restored contents of a source device wherein the contents of the source device includes both a plurality of files and a file directory of the source device as required by claims 1 and 11. Instead, in the Maurer reference, restoring files from a source standard volume is believed to be from either "the BCV's [business continuation volumes] on the target or tape."

As explained in the present specification, the claimed method permits the contents of a source device to be restored from a single file. By comparison, it appears that a restoration method in accordance with the Maurer reference, utilizes many separate files, including a "tree structure file" which maps the logical configuration of the computer system as described at paragraph 74 of the Maurer reference, together with the data files containing the actual backed up data itself stored in either "the BCV's [business continuation volumes] on the target or tape" as described at paragraph 110 of the Maurer reference.

Moreover, a method in accordance with the present description can, in one embodiment, readily permit the restoration of the source device contents using an operating system command such as the Unix "dd" command, to copy the contents of the single file to the target device (see claim 12) to restore the contents of the source device. Such contents are not limited to any particular type of data or application. Furthermore, such a Unix command does not require operation of any application programs. By comparison, the "redo log" of the Maurer reference appears to be a part of the Oracle database and the database restore operation is performed by the Oracle database program using the redo log and the BCV's on the target or tape. Maurer reference, paragraphs 106-111.

Claims 1, 3-8, 13, 15-20, 25, and 27-32 have been rejected under 35 U.S.C. 102(b) as being anticipated by Cannon (US Patent No. 6,098,074) issued August 1, 2000. Claims 2, 9, 11, 14, 21, 23, 26, 33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon (US Patent No. 6,098,074) filed October 29,1997, in view of Maurer (US Patent Application No. 20030065780) filed September 27, 2002. Claims 10, 12, 22, 24, 34, and 36 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon (US Patent No. 6,098,074) filed October 29, 1997, in view of Maurer (US Patent Application No. 20030065780) filed September 27, 2002, and further in view of "Logical vs. Physical File System Backup", By: Hutchinson, Published: 1999; referred to hereinafter as 'Hutchinson'. These rejections are respectfully traversed.

As set forth above, Claim 1 requires "using the at least one object, restoring the contents of the source device from the at least one object to a *single* target file in a file system stored on a storage device so that the target file contains said contents of the source device [wherein the contents of the source device includes a plurality of files and a file directory of the source device]." [Emphasis added.] In contrast, it is believed that the Examiner's citations to the "Client Restore" (col. 14, lines 1-13) of the Cannon reference describe using a database object to restore a volume containing files to the same or another volume containing those files. Thus, a plurality of files are restored, via the database object, as a plurality of files rather than as a single file which includes a plurality of files and a file directory of the source device.

The Examiner has cited the "Storage Pool Restore" (col. 17, lines 17-44) of the Cannon reference. However, it is believed that the Examiner's citations to the "Storage Pool Restore" of the Cannon reference describe using a database object within the database to restore that

database object to another location within the database. Claim 1 has been amended to clarify that the recited single target file is "not an object of said database." Thus, it is clear that the Examiner has cited no portion of the Cannon reference teaching or suggesting "using the at least one object, restoring the contents of the source device from the at least one object to a *single* target file in a file system stored on a storage device so that the target file contains said contents of the source device [wherein the contents of the source device includes a plurality of files and a file directory of the source device] wherein said target file is not an object of said database" as required by claim 1.

The deficiencies of the Examiner's citations to the Cannon reference are not met by the Examiner's citations to the Maurer or Hutchinson reference as set forth above. Independent claims 13 and 25 may be distinguished in a similar fashion. The rejection of the dependent claims is improper for the reasons given above. Moreover, the dependent claims include additional limitations, which in combination with the base and intervening claims from which they depend provide still further grounds of patentability over the cited art.

The Examiner has made various comments concerning the obviousness or anticipation of certain features of the present inventions. Applicants respectfully disagree. Applicants have addressed those comments directly hereinabove or the Examiner's comments are deemed moot in view of the above response.

Although Applicants amended claims to overcome the unpatentable rejection, Applicants are not conceding in this application that the claims in their pre-amended form are invalid for being unpatentable, as the present claim amendments and cancellations are only for facilitating expeditious prosecution. Also it is respectfully submitted that the amendments are made to clarify recited features and do not narrow the scope of the claimed inventions. Applicants respectfully reserve the right to pursue these and other claims in this present application and one or more continuations and/or divisional patent applications.

Conclusion

For all the above reasons, Applicant submits that the pending claims are patentable over the art of record. Applicants have not added any claims. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-0466.

The attorney of record invites the Examiner to contact him at (310) 553-7970 if the Examiner believes such contact would advance the prosecution of the case.

Dated: November 23, 2007   By:___/William Konrad/___

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